

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/496,824	02/02/2000	Ari Juels	SDT-036(7216/51) 6735	
	7590 02/03/2004		EXAMINER	
TESTA, HURWITZ & THIBEAULT, LLP HIGH STREET TOWER			ALI, AHMEDUR R	
125 HIGH STREET BOSTON, MA 02110		ART UNIT	PAPER NUMBER	
			2131	
			DATE MAILED: 02/03/2004	, 3

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)				
Office Action Summary							
		09/496,824 Examiner	JUELS ET AL.				
		Ahmedur Ali	Art Unit				
	The MAILING DATE of this communication ap		2131 òrrespondence address				
Period for Reply							
THE I - Exter after - If the - If NO - Failu - Any r	ORTENED STATUTORY PERIOD FOR REPL MAILING DATE OF THIS COMMUNICATION. Insions of time may be available under the provisions of 37 CFR 1.7 SIX (6) MONTHS from the mailing date of this communication. In period for reply specified above is less than thirty (30) days, a replay period for reply is specified above, the maximum statutory period are to reply within the set or extended period for reply will, by statute reply received by the Office later than three months after the mailing and patent term adjustment. See 37 CFR 1.704(b).	I36(a). In no event, however, may a reply be timely within the statutory minimum of thirty (30) days will apply and will expire SIX (6) MONTHS from a, cause the application to become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. & 133).				
1)⊠	Responsive to communication(s) filed on <u>02 F</u>	ebruary 2000.	· \				
2a)□	This action is FINAL . 2b)⊠ This	action is non-final.	\ <u>\</u>				
3) Since this application is in condition for allowance except for formal matters, prosecution as to the ments is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.							
Disposit	ion of Claims						
4)⊠)⊠ Claim(s) <u>1-59</u> is/are pending in the application.						
_	4a) Of the above claim(s) is/are withdrawn from consideration.						
· · · · · · · · · · · · · · · · · · ·	5) Claim(s) is/are allowed.						
· —	6) Claim(s) 1-59 is/are rejected.						
7)∐ 8)□	☐ Claim(s) is/are objected to. ☐ Claim(s) are subject to restriction and/or election requirement.						
Application Papers							
9) ☐ The specification is objected to by the Examiner. 10) ☐ The drawing(s) filed on 02 February 2000 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.							
Priority under 35 U.S.C. §§ 119 and 120							
* \$ 13)⊠	Acknowledgment is made of a claim for foreig All b) Some * c) None of: 1. Certified copies of the priority document Copies of the certified copies of the priority documents. Copies of the certified copies of the priority documents. Copies of the certified copies of the priority documents. Copies of the certified copies of the priority documents. Copies of the certified copies of the priority documents. Copies of the certified copies of the priority documents. Copies of the certified copies of the priority documents. Copies of the certified copies of the priority documents. Copies of the certified copies of the priority documents. Copies of the certified copies of the priority documents. Copies of the priority	ts have been received. Its have been received in Applicationity documents have been received in (PCT Rule 17.2(a)). It of the certified copies not received priority under 35 U.S.C. § 119(a) is sentence of the specification or covisional application has been received priority under 35 U.S.C. §§ 120	on Noed in this National Stage ed. e) (to a provisional application) in an Application Data Sheet. eived. and/or 121 since a specific				
2) Notic	ce of References Cited (PTO-892) ce of Draftsperson's Patent Drawing Review (PTO-948)	√ 5) □ Notice of Informal P	(PTO-413) Paper No(s) latent Application (PTO-152)				
3) 🔀 Infor	mation Disclosure Statement(s) (PTO-1449) Paper No(s)	<u>4</u> . 6) ∐ Other: .					

Art Unit: 2131

DETAILED ACTION

1. The application has been examined. Claims 1-59 are pending in this Office Action.

Priority

2. Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged to Provisional Application Serial No. 60/18,754, filed February 5, 1999.

Information Disclosure Statement

3. The references cited in the Information Disclosure Statement (IDS-FORM 1149), Paper Number 4, has been considered by the examiner.

Specification

- 4. The examiner suggests the Applicant's to remove the TITLE of the invention from the Abstract on page 60 accordingly.
- 5. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Art Unit: 2131

Claim Rejections - 35 USC § 103

- 6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 7. Claims 1-10, 14-20, 24-38, and 42-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Todd, Sr. et al. U.S. Patent No. 6,185,689 ('Todd' hereinafter) in view of Benson U.S. Patent No. 5,935,246. With respect to claim 1, Todd teach a method for allocating a resource (see abstract; col. 4, lines 26-53), comprising the steps of:
- (a) receiving a resource allocation, request from a client (see col. 5, lines 66-67 to col. 6, lines 1-14, 50-56);
- (b) imposing on said client a computational task and a time limit for correct completion of said computational task (see col. 6, lines 40-67);
- (d) allocating said resource for said client if the verification is received (see col. 6, lines 15-26)

Todd do not explicitly disclose receiving verification that said client has correctly performed computational task within said time limit.

Benson disclose receiving verification that said client has correctly performed computational task within said time limit.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Benson within the system of Todd to

Art Unit: 2131

arrive at the invention as claimed because both references are directed to a method of allocating a resource and the implementation of a time limit would limit the amount of time that the client has to complete the computationally intensive task, further increasing the security of the combined system by enabling the server to verify that the task was performed correctly.

- 8. Claim 2 rejected as above in rejecting claim 1, wherein said resource allocation request comprises a network connection request (see col. 6, lines 15-26).
- 9. Claim 3 rejected as above in rejecting claim 1, wherein said step (b) comprises communicating a puzzle as at least a portion of said communication task (see col. 5, lines 66-67 to col. 6, lines 1-14; Fig. 1).
- 10. Claim 4 rejected as above in rejecting claim 3, wherein said step (b) comprises communicating the output of a one-way function to said client (see col. 5, lines 66-67 to col. 6, lines 1-14)
- 11. Claim 5 rejected as above in rejecting claim 3, wherein said step (b) comprises communicating the output of a block cipher to said client (see col. 4, lines 38-54).
- 12. Claim 6 rejected as above in rejecting claim 3, wherein said step (b) comprises communicating the output of a function, wherein the input of said function is generated, based at least in part on a server secret unknown to said client, and not revealed through correct performance of said computational task (see col. 6, lines 5-67).
- 13. As per claim 7, Todd do not explicitly show the said function comprises of a timestamp and information authenticating the timestamp. However, Benson disclose wherein the input of said function comprises a timestamp and information authenticating

Art Unit: 2131

the timestamp (see col. 11, lines 19-30). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Todd in view of Benson for the same reasons set forth in claim 3 above.

- 14. Claim 8 rejected as above in rejecting claim 3 wherein said step (b) comprises communicating a puzzle constructed in a self-authenticating fashion (see col. 5, lines 66-67 to col. 6, lines 1-14).
- 15. As per claim 9, Todd do not explicitly show a hash image and a partially revealed pre-image to said client. However, Benson teaches communicating a hash image and a partially revealed pre-image to said client (see col. 5, lines 34-40). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Todd in view of Benson for the same reasons set forth in claim 3 above.
- 16. As per claim 10, Todd do not explicitly show a receiving the remaining preimage. However, Benson teaches receiving the remaining pre-image (see col. 5, lines 26-40). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Todd in view of Benson for the same reasons set forth in claim 9 above.
- 17. Claim 14 rejected as above in rejecting claim I wherein said step (a) comprises receiving a TCP SYN request (see col. 2, lines 61-67 to col. 3, lines 1-6).
- 18. Claim 15 rejected as above in rejecting claim I wherein said step (a) comprises receiving a request to open an SSL connection (see col. 4, lines 38-53).
- 19. Claim 16 rejected as above in rejecting claim I wherein said step (b) comprises the steps of.

Application/Control Number: 09/496,824 Page 6

Art Unit: 2131

(ba) determining if a computational task is to be imposed upon said client based upon the operating circumstances at the time of receiving said resource allocation request from said client (see col. 4, lines 26-37); and

- (bb) if a computational task is determined to be imposed upon said client then selecting a computational task responsive to at least one characteristic of said operating circumstances at the time of receiving said resource allocation request (see col. 6, lines 40-64); and
- (bc) if a computational task is determined to be imposed upon said client then imposing the selected computational task on said client (see col. 6, lines 40-64).
- 20. Claim 17 rejected as above in rejecting claim 1, wherein said step (a) comprises receiving a resource allocation request comprising a query, or accompanied or preceded by a query concerning whether a server is currently imposing computational tasks (see col. 6, lines 50-67; col. 8, lines 7-19).
- 21. With respect to claim 18, Todd teach a method for procuring a resource comprising the steps of:
 - (a) communicating a resource allocation request to a server (see col.5, lines 66-67 to col. 6, lines 1-26);
 - (b) receiving a computational task from said server (see col. 6, lines50-56);
 - (d) communicating to said server a verification that said computational task has been performed correctly within the known time limit (see col. 6,lines 40-67).

Art Unit: 2131

Todd do not disclose performing or delegating the performance of said computational task correctly within a known time limit.

Benson disclose performing or delegating the performance of said computational task correctly within a known time limit (see col. 11, lines 19-30).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Benson within the system of Todd to arrive at the invention as claimed because both references are directed to a method of allocating a resource and the implementation of a time limit would limit the amount of time that the client has to complete the computationally intensive task, further increasing the security of the combined system by enabling the server to verify that the task was performed correctly.

- 22. Claim 19 rejected as above in rejecting claim 18 wherein said resource allocation request comprises a network connection request (see col. 6, lines 15-26).
- 23. Claim 20 rejected as above in rejecting claim18, wherein said step (b) comprises receiving said

computational task and a time limit for performance of said computational task from said server (see col. 6, lines 40-67)

- 24. Claim 24 rejected as above in rejecting claim 18, wherein said step (a) comprises transmitting a TCP SYN request (see col. 2, lines 61-67 to col. 3, lines 1-6).
- 25. Claim 25 rejected as above in rejecting claim 18, wherein said step (a) comprises transmitting a request to open an SSL connection (see col. 4, lines 38-53).

Art Unit: 2131

- 26. Claim 26 rejected as above in rejecting claim 18, wherein said. step (a) comprises transmitting a resource allocation request comprising a query, or accompanied or preceded by a query concerning whether a server is currently imposing computational tasks (see col. 6, lines 50-67; col. 8, lines 7-19).
- 27. With respect to claim 27, Todd teach an apparatus for allocating a resource (see abstract; col. 4, lines 26-53) comprising:

a first receiver receiving a resource allocation request from a client (see col. 7, lines 14-46);

a computational task generator for imposing a computational task upon said client for correct performance within a time limit (see col. 6, lines 40-67); and a transmitter communicating said computational task to said client (see col. 7, lines 14-46); and

an allocator allocating said resource for said client (see col. 6,lines 40-67).

Todd do not explicitly disclose wherein said computational task was correctly performed with said time limit.

Benson disclose a second receiver receiving a verification from said client that said computational task was correctly performed with said time limit (see col. 11, lines 19-30).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Benson within the system of Todd to arrive at the invention as claimed because both references are directed to a method of allocating a resource and the implementation of a time limit would limit the amount of

Art Unit: 2131

time that the client has to complete the computationally intensive task, further increasing the security of the combined system by enabling the server to verify that the task was performed correctly.

- 28. Claim 28 rejected as above in rejecting claim 27, wherein said first receiver and said second receiver comprise the same receiver (see col. 7, lines 14-46).
- 29. Claim 29 rejected as above in rejecting claim 27, wherein said first receiver receives a resource allocation request comprising a network connection request (see col. 7, lines 14-46).
- 30. Claim 30 rejected as above in rejecting claim 27, wherein said transmitter communicates said computational task and a time limit for performance of said computational task to said client (see col. 6, lines 40-67);
- 31. Claim 31 rejected as above in rejecting claim 27, wherein said computational task comprises a puzzle (see col. 4, lines 38-53).
- 32. Claim 32 rejected as above in rejecting claim 31 wherein said puzzle comprises the output of a one-way function (see col. 5, lines 66-67 to col. 6, lines 1-14).
- 33. Claim 33 rejected as above in rejecting claim 31 wherein said puzzle comprises the output of a block cipher (see col. 4, lines 38-53).
- 34. Claim 34 rejected as above in rejecting claim 31, wherein said puzzle comprises the output of a function, wherein the input of said function is based at least in part on a server secret unknown to said client and not revealed through correct performance of said computational task (see col. 6, lines 50-67).

Art Unit: 2131

- 35. As per claim 35, Benson further teaches wherein said puzzle comprises the output of a function, wherein the input of said function comprises a timestamp and information authenticating the timestamp (see col. 11, lines 19-30).
- 36. Claim 36 rejected as above in rejecting claim 31, wherein said puzzle is constructed in a self-authenticating fashion (see col. 5, lines 11-40).
- 37. As per claim 37, Benson further teaches wherein said puzzle comprises a hash image, and a partially revealed pre-image (see col. 5, lines 11-40).
- 38. As per claim 38, Benson further teaches wherein said verification comprises verifying the remaining unrevealed pre-image (see col. 5, lines 11-40).
- 39. Claim 42 rejected as above in rejecting claim 27, wherein said resource allocation request comprises a TCP SYN request (see col. 2, lines 61-67 to col. 3, lines 1-6).
- 40. Claim 43 rejected as above in rejecting claim 27 wherein said resource allocation request comprises a request to open an SSL connection (see col. 4, lines 38-53).
- 41. Claim 44 rejected as above in rejecting claim 27 wherein said computational task is selected responsive to at least one characteristic of the operating circumstances at the time of receiving said resource allocation request (see col. 6, lines 40-67).
- 42. Claim 45 rejected as above in rejecting claim 27 wherein said resource allocation request comprises a query, or is accompanied or preceded by a query concerning whether a server is currently imposing computational tasks (see col. 6, lines 50-67; col. 8, lines 7-19).

Art Unit: 2131

- 43. Claim 46 rejected as above in rejecting claim 27 comprising a time limit generator generating a time limit within which said client must correctly perform said computational task (see col. 40, lines 40-49);
- 44. Claims 11-13, and 21-23 and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Todd, Sr. et al. U.S. Patent No. 6,185,689 ('Todd' hereinafter) in view Benson (U.S. Patent No. 5,935,246), in further view of Ranger U.S. Patent No. 6,301,584.
- 45. As per claim 11, Todd and Benson teach the limitation set forth above in claim 3. Todd and Benson do not explicitly disclose wherein said step (b) comprises communicating a plurality of sub-puzzles to a client.

Ranger teach wherein said step (b) comprises communicating a plurality of subpuzzles to a client (see col. 20, lines 37-43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Todd and Benson within the system of Ranger to arrive at the invention as claimed because the references are directed towards a method for allocating a resource, and the implementation of sub-puzzles would improve the ability of the computational task to solve the cryptographic processes or the puzzle independently since the sub-puzzles are constructed independently, further increasing the security and increasing the versatility of the combined systems.

46. As per claim 12, Todd and Benson do not explicitly show communicating a plurality of independently constructed sub-puzzles. However, Ranger teaches wherein

Art Unit: 2131

said step (b) comprises communicating a plurality of independently constructed sub-puzzles (see col. 20, lines 37-43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Todd in view of Benson, in further view of Ranger for the same reasons set forth in claim 11 above.

- 47. As per claim 13, Todd and Benson do not explicitly show communicating a plurality of sub-puzzles wherein each sub-puzzle is constructed with some intended overlap. However, Ranger teaches wherein said. step (b) comprises communicating a plurality of sub-puzzles wherein each sub-puzzle is constructed with some intended overlap (see col. 20, lines 37-43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Todd in view of Benson, in further view of Ranger for the same reasons set forth in claim 11 above.
- 48. As per claim 21, Todd and Benson teach the limitations set forth above in claim 18.

Todd and Benson do not explicitly disclose wherein said step (c) comprises solving a puzzle.

Ranger teach wherein said step (c) comprises solving a puzzle (see col. 17, lines 14-16, 53-55; col. 20, lines 37-43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Todd and Benson within the system of Ranger to arrive at the invention as claimed because the references are directed towards a method for allocating a resource, and the implementation of sub-puzzles would improve the ability of the computational task to solve the cryptographic processes

Art Unit: 2131

or the puzzle independently since the sub-puzzles are constructed independently, further increasing the security and increasing the versatility of the combined systems.

- 49. As per claim 22, Todd and Benson do not explicitly show wherein said step (c) comprises a linear search of the solution space associated with said computational task. However, Ranger teaches wherein said step (c) comprises a linear search of the solution space associated with said computational task (see col. 17, lines 66-67 to col. 18, lines 1-4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Todd in view of Benson in further view of Ranger for the same reasons set forth in claim 21 above.
- 50. As per claim 23, Todd and Benson teach the limitation set forth above in claim
 18. Todd and Benson do not explicitly disclose wherein said step (b) comprises solving a plurality of sub-puzzles.

Ranger teach wherein said step (b) comprises solving a plurality of sub-puzzles (see col. 20, lines 37-43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Todd and Benson within the system of Ranger to arrive at the invention as claimed because the references are directed towards a method for allocating a resource, and the implementation of sub-puzzles would improve the ability of the computational task to solve the cryptographic processes or the puzzle independently since the sub-puzzles are constructed independently, further increasing the security and increasing the versatility of the combined systems.

Art Unit: 2131

51. As per claim 39, Todd and Benson teach the limitation set forth above in claim

31. Todd and Benson do not explicitly disclose wherein said step (b) comprises a plurality of sub-puzzles.

Ranger teach wherein said step (b) comprises a plurality of sub-puzzles (see col. 20, lines 37-43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Todd and Benson within the system of Ranger to arrive at the invention as claimed because the references are directed towards a method for allocating a resource, and the implementation of sub-puzzles would improve the ability of the computational task to solve the cryptographic processes or the puzzle independently since the sub-puzzles are constructed independently, further increasing the security and increasing the versatility of the combined systems.

- 52. As per claim 40, Todd and Benson do not explicitly show wherein said plurality of sub-puzzles are constructed independently. However, Ranger teaches wherein said plurality of sub-puzzles are constructed independently (see col. 20, lines 37-43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Todd in view of Benson in further view of Ranger for the same reasons set forth in claim 39 above.
- 53. As per claim 41, Todd and Benson do not explicitly show wherein said plurality of sub-puzzles are constructed with some intended overlap. However, Ranger teaches wherein said plurality of sub-puzzles are constructed with intended overlap (see col. 20, lines 37-43). It would have been obvious to one of ordinary skill in the art at the time the

Art Unit: 2131

invention was made to combine Todd in view of Benson in further view of Ranger for the same reasons set forth in claim 39 above.

54. Claims 47-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Todd, Sr. et al. U.S. Patent No. 6,185,689 ('Todd' hereinafter) in view of Ranger U.S. Patent No. 6,301,584. With respect to claim 47, Todd teach an apparatus for procuring a resource (see abstract; col. 4, lines 26-53) comprising:

a first transmitter communicating a resource allocation request to a server (see col. 7, lines 14-46);

a first receiver receiving a computational task from said server (see col. 7, lines 14-46);

a computational task solver correctly performing said computational task within a known time limit (see col. 6, lines 40-67)

Todd do not explicitly disclose a second transmitter communicating to said server a verification that said computational task has been performed.

Ranger disclose a second transmitter communicating to said server a verification that said computational task has been performed (see col. 5, lines 6-18).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Ranger within the system of Todd to arrive at the invention as claimed because the implementation of verification that the computational task has been performed would improve the verification capability of the server by further verifying that a computational task that is imposed by the server on the

Art Unit: 2131

client has achieved some defined and verifiable result, further increase the security and improving the versatility of the combined system.

- 55. Claim 48 rejected as above in rejecting claim 47, wherein said first transmitter and said second transmitter comprise the same transmitter (see col. 7, lines 14-46).
- 56. Claim 49 rejected as above in rejecting claim 47 wherein said first transmitter sends a resource allocation request comprising a network connection request (see col. 7, lines 14-46).
- 57. Claim 50 rejected as above in rejecting claim 47 further comprising a second receiver receiving a time limit for performing said computational task (see col. 6, lines 40-67).
- 58. Claim 51 rejected as above in rejecting claim 50 wherein said first receiver and said second receiver comprise the same receiver (see col. 7, lines 14-46).
- 59. As per claim 52, Todd do not explicitly show wherein said computational task comprises a puzzle. However, Ranger teaches wherein said computational task comprises a puzzle (see col. 20, lines 37-43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Todd in view of Ranger for the same reasons set forth in claim 47 above.
- 60. As per claim 53, Todd do not explicitly show wherein said computational task performs a linear search of potentially the entire solution space associated with said computational task. However, Ranger teaches wherein said computational task performs a linear search of potentially the entire solution space associated with said computational task (see col. 17, lines 66-67 to col. 18, lines 1-4). It would have been

Application/Control Number: 09/496,824 Page 17

Art Unit: 2131

obvious to one of ordinary skill in the art at the time the invention was made to combine Todd in view of Ranger for the same reasons set forth in claim 47 above.

- 61. As per claim 54, Todd do not explicitly show wherein said computational task comprises a plurality of sub-puzzles. However, Ranger teaches wherein said computational task comprises a plurality of sub-puzzles (see col. 20, lines 37-43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Todd in view of Ranger for the same reasons set forth in claim 47 above.
- 62. As per claim 55, Todd do not explicitly show wherein said sub-puzzles are constructed independently. However, Ranger teaches wherein said sub-puzzles are constructed independently 9see col. 20, lines 37-43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Todd in view to Ranger for the same reasons set forth in claim 54 above.
- 63. As per claim 56, Todd do not explicitly show wherein said sub-puzzles are constructed with some intended overlap. However, Ranger teaches wherein said sub-puzzles are constructed with some intended overlap (see col. 20, lines 37-43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Todd in view to Ranger for the same reasons set forth in claim 54 above.
- 64. Claim 57 rejected as above in rejecting claim 47 wherein said resource allocation request comprises a TCP SYN request (see col. 2, lines 61-67 to col. 3, lines 1-6).
- 65. Claim 58 rejected as above in rejecting claim 47 wherein said resource allocation request comprises a request to open an SSL connection (see col. 4, lines 30-53.

Art Unit: 2131

Page 18

66. Claim 59 rejected as above in rejecting claim 47 wherein said resource allocation request comprises a query, or is accompanied or preceded by a query concerning whether said server is currently imposing computational tasks (see col. 6, lines 50-67; col. 8, lines 7-19).

Art Unit: 2131

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rose (U.S. Patent No. 6,529,487) discloses a method and apparatus for securely transmitting distributed rand for authentication.

Boebert et al. (U.S. Patent No. 5,864,683) disclose a system and method for the secure transfer of data between a workstation connected to a private network and remote computer connected to an unsecured network.

Coley et al. (U.S. Patent 5,826,014) disclose a firewall system for protecting network elements connected to a public network.

Gupta et al. (U.S. Patent No. 6,389,532) disclose a method and apparatus for using digital signatures to filter packets in a network.

Coley et al. (U.S. Patent 6,061,798) disclose a firewall system for protecting network elements connected to public network.

Rechef et al. (U.S. Patent No. 6,199,181) disclose a method and system for maintaining restricted operating environments for application programs or operating systems.

Port et al. (U.S. Patent No. 5,243,596) disclose a network architecture suitable for multicasting and resource locking.

Roy (U.S. Patent No. 6,049,774) disclose a machine, method and medium for dynamic optimization for resource allocation.

Art Unit: 2131

Page 20

Gregg et al. (U.S. Patent No. 6,516,416) teach a subscription access system for use with an untrusted network.

Art Unit: 2131

Page 21

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ahmedur Ali whose telephone number is 305-4667. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 305-9648. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 305-3900.

ara

SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100